

**COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY**

**SECOND SET OF INFORMATION REQUESTS OF THE
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY
TO KEYSpan ENERGY DELIVERY, D.T.E. 05-68**

Pursuant to 220 C.M.R. § 1.06(6)(c), the Department of Telecommunications and Energy (“Department”) submits to KeySpan Energy Delivery (“KeySpan”) the following Information Requests.

Instructions

The following instructions apply to this set of Information Requests and all subsequent Information Requests issued by the Department in this proceeding.

1. Each request should be answered in writing on a separate, three-hole punch page with a recitation of the request, a reference to the request number, the docket number of the case, and the name of the person responsible for the answer.
2. Do not wait for all answers to be completed before supplying answers. Provide the answers as they are completed.
3. These requests shall be deemed continuing so as to require further supplemental responses if KeySpan or its witnesses receives or generates additional information within the scope of these requests between the time of the original response and the close of the record in this proceeding.
4. The term “provide complete and detailed documentation” means:

Provide all data, assumptions and calculations relied upon. Provide the source of and basis for all data and assumptions employed. Include all studies, reports and planning documents from which data, estimates or assumptions were drawn and support for how the data or assumptions were used in developing the projections or estimates. Provide and explain all supporting workpapers.
5. The term “document” is used in its broadest sense and includes, without limitation, writings, drawings, graphs, charts, photographs, phono-records, microfilm, microfiche, computer printouts, correspondence, handwritten notes, records or reports, bills, checks, articles from journals or other sources and other data compilations from which information can be obtained and all copies of such documents that bear notations or other markings that differentiate such copies from the original.

6. If any one of these requests is ambiguous, notify the Hearing Officer so that the request may be clarified prior to the preparation of a written response.
7. Please file one copy of the responses with Mary L. Cottrell, Secretary of the Department; also submit two (2) copies of the responses to Andrea Saia, Hearing Officer, one (1) copy of the responses to Andréas Thanos, Assistant Director, Gas Division, one (1) copy of the responses to Cynthia Bradbury, Analyst, Gas Division, one (1) copy of the responses to Kenneth Dell Orto, Analyst, Gas Division, and one (1) copy of the responses to Carmen Liron-Espana, Analyst, Gas Division.
8. Responses are due on or before Tuesday, February 14, 2006.

Requests

- DTE 2-1 Please state the differences between the End-Use Model reviewed and approved by the Department in DTE 01-105 and the End-Use Model used in the current forecast and supply filing.
- DTE 2-2 On page 12 of the Company's filing, it states that the end-use methodology simulates the behavioral patterns of individual customers as they make choices about energy sources, equipment, and consumption levels. Please discuss the main variables affecting customer decisions and list the assumptions that were relied upon in simulating customer choice.
- DTE 2-3 On page 12 of the Company's filing, it states that the End-Use Model simulates how customers will adjust their level of energy consumption in response to changes in energy prices. Explain how the Company forecasted the energy prices (e.g., natural gas prices, electricity prices and oil prices). Please present a measure of reliability of the energy price forecast.
- DTE 2-4 On page 13 of the Company's filing, the Company states that it compares the model outputs to actual consumption for the years between the base year and the first year of the forecast. Please indicate the first year of the forecast. Does the Company have actual data for the first year?
- DTE 2-5 On page 13 of the Company's filing, the Company states that the End-Use Model has to be recalibrated by adjusting the algorithm coefficients. Please:
(a) provide an example of how the Company calibrates the model (i.e., provide actual data, backcast from the End-Use Model, and the calibration on the algorithm or adjustment of the coefficient); and

- (b) indicate how many and what algorithms needed to be calibrated and by how much.

DTE 2-6 Refer to the calibration process of the End-Use Model on pages 17-18 of the Company's filing. Please indicate:

- (a) when the Company decides to calibrate the model (e.g., threshold of load deviation between actual and forecast above which the calibration would be performed); and
- (b) how the calibration is performed (e.g., define the period). If the calibration is performed on an annual basis, please discuss whether the adjustments made in the algorithms in 2002, for example, are carried over the years 2003 and 2004.

DTE 2-7 Please indicate whether the End-Use Model uses different algorithms for each of KeySpan's service areas. Explain why they are different or the same.

DTE 2-8 Refer to pages 13-14 of the Company's filing. The Company states that it initiates periodic reviews of the Model design to obtain an independent assessment of the opportunities for improved accuracy through design changes and that the latest review was completed by XENERGY in 2000. Please discuss:

- (a) the number of updates and the nature of the updates the Company has undertaken in the End-Use Model from 1985 to today; and
- (b) the major reasons or factors leading the Company to either modify the algorithms (as XENERGY did in the year 2000) or recalibrate the model.

DTE 2-9 Refer to pages 17-18 of the Company's filing. The Company states that to the extent that the Model results differ from actual experience, the Company makes adjustments to the coefficients of the use-per-customer algorithms in the residential model and/or the use-per-employee algorithms in the commercial/industrial model. Please indicate whether the adjustments to the coefficients are permanent.

DTE 2-10 Refer to page 16 of the Company's filing. Please define "NAICS." Discuss how the Company's forecast model was affected by the government change in the industrial classification system from Standard Industrial Classification to NAICS.

DTE 2-11 On page 16 of the Company's filing, the Company states that it relies on fuel market share to estimate the commercial and industrial energy demand. Please

discuss the variables that may affect the fuel market shares. Indicate how many times (if any) the market share has been modified in the End-Use Model since 1985.

- DTE 2-12 Please provide the following information:
- (a) own-price elasticities used in the forecast;
 - (b) fuel switching data by customer type; and
 - (c) fuel market share used by customer type.
- DTE 2-13 Refer to the commodity-price forecast in Chart III-B-7 in the Company's filing.
- (a) Please discuss the components of the forecasted natural gas price and the No. 2 oil;
 - (b) Indicate the components of the commodity-price forecast relied upon in the Global Insight inputs; and
 - (c) Identify the source and provide back-up materials for all fuel-price projections in Chart III-B-7.
- DTE 2-14 Refer to page 28 of the Company's filing. The Company states that the forecasting model employs a negative short-term price elasticity of demand for the commercial/industrial market.
- (a) Please explain why the Company did not use a long-term price elasticity;
 - (b) Provide the short-term as well as the long-term price elasticity; and
 - (c) List all assumptions that led the Company to select the short-term instead of the long-term price elasticity (e.g., consumer fuel switching capabilities).
- DTE 2-15 Refer to page 28 of the Company's filing. The Company states that the updated commodity-price forecasts resulting from Hurricane Katrina were not available when preparing the current forecast and supply plan. Please discuss how the inclusion of those price commodity forecasts could have changed the current Company's forecast.
- DTE 2-16 Refer to page 22 of the Company's filing. Please explain the following sentence: "The model assumes that annual energy demand for existing households is price-elastic."
- DTE 2-17 Refer to page 28 of the Company's filing. Please explain the following sentence: "The model assumes that annual energy demand for existing commercial/industrial establishments is price-elastic."

- DTE 2-18 Refer to pages 22 and 28 of the Company's filing. Discuss how the own-price elasticities used in the End-Use Model were developed.
- DTE 2-19 The Company states that KeySpan applied an average of the percent of transportation migration in each tier between 1997 and 2005 to the total loads expected to occur during the five-year forecast period. Please specify the average percentages used per tier.
- DTE 2-20 Refer to pages 38-42 of the Company's filing. Please present a backcast of the actual versus forecasted direct transportation sendout.
- DTE 2-21 Please present data on Company-use and unaccounted-for gas for the last ten years (i.e., forecasted and actual volumes).
- DTE 2-22 Please present data on "peak day sendout " and "design day sendout" for the last 20 years (forecasted and actual volumes).
- DTE 2-23 Please discuss whether the Company's End-Use Model output is more sensitive to demographic variable changes or to economic variable changes. For instance, explain whether a one percent increase in the employment rate or a one percent decrease in the price of natural gas would cause a greater increase in the demand for natural gas, assuming all else remains constant.
- DTE 2-24 Refer to pages 43-44 of the Company's filing. The Company assumes no change in the commodity price of gas when developing the low- and high-demand scenarios by arguing that even though price changes may occur it would not be consistent with the other economic assumptions driving the forecast. Please discuss what other economic assumptions the Company is referring to and explain why the changes would not be consistent.
- DTE 2-25 On page 43 of the Company's filing, KeySpan states that "The high-demand scenario assumes that household growth and employment rates will be 50 percent greater than those forecasted in the base-case scenario."
- (a) Using historical household and employment data over the past twenty years, please assess the reasonableness of this assumption. Indicate the source(s) of your data.
 - (b) Identify the last time KeySpan experienced such growth rates in the Company's various service territories.
 - (c) If the high-demand scenario is not supported by the Company's historical experience, what effect will that have on the Company and its customers in terms of resource planning? Explain.

- DTE 2-26 Please indicate whether the Company, in its previous forecast and supply plan (D.T.E. 01-105), assumed that there would be no commodity price changes when it developed the forecast for low- and high-demand scenarios. If the Company assumed that there would be commodity price changes, please discuss why and the differences between that filing and the current filing.
- DTE 2-27 Refer to Chart-III-B-18 of the Company's filing. Please indicate whether the forecast variables for the years 2001 through 2004 are the result of the calibration process (of the End-Use Model) performed by the Company. If the response is yes, please present the same information presented in Chart-III-B-18 using as forecasted values the results from the Non-calibrated End-Use Model.
- DTE 2-28 Refer to page 47 of the Company's filing. Please explain how the Company developed the normalized daily sendout requirements using the linear regression equations.
- DTE 2-29 Refer to pages 47-50 of the Company's filing. Please discuss the method(s) that the Company used to estimate the regression equations for the baseline sendout requirements for each of the four geographical areas (i.e., Boston, Essex, Lowell, and Cape Cod).
- DTE 2-30 Please explain the reason(s) KeySpan did not establish a cold-snap planning standard and a cold-snap sendout requirement as part of its forecast and supply plan.